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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,020	05/31/2001	Yasuhiro Shiraishi	Q64727	7655

7590 02/12/2004
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Macpeak & Seas
2100 Pennsylvania Avenue NW
Washington, DC 20037-3202

EXAMINER

ABDULSELAM, ABBAS I

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/857,020

Applicant(s)

YASUHIRO ET AL.

Examiner

Abbas I Abdulsalam

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) Z.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation "said manual pulse generator" in the last part of the claim under "pulse input means". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Suganuma (USPN 5767609).

Regarding claims 1, 6, 8 and 11, the admitted prior art teaches a motor (14) driven at a variable speed by an output from the inverter (13). The admitted prior art also teaches a control apparatus including a display part (23), key group (24), and control panel means (33). The admitted prior art further teaches the use of variable resistor (25), and does not teach a manual pulse generator for manually rotating a handle to generate command pulse. Suganuma on the other hand teaches that the variable resistor (43) in Fig. 24 can be replaced by a pulse generator (130) of Fig. 28. See col. 16, lines 1-6.

Therefore, it would have been obvious to one having skill in the art at the time the invention was made to replace the variable resistor (25) in the admitted prior by Suganuma's pulse generator (130) for the purpose of detecting the speed of a rotor (100-1) of the ultrasonic motor (see col. 16, lines 1-6).

Since replacement of a variable resistor by a pulse generator is known, it would have been obvious that input means (32) and control panel means (33) described in admitted prior art can be made compatible with the pulse generator.

In addition, Suganuma teaches the drive state detecting circuit detecting the drive state of the ultrasonic motor, and the drive frequency (voltage) setting circuit controlling the frequency (or voltage) of signal for driving the ultrasonic motor. See the abstract. Suganuma further teaches that the pulse generator generates pulses in response to the speed of the rotor (100-1), and discloses a drive speed setting circuit (9) with respect to an amplifier (93) which determines and amplifies the difference between the voltage signal from the F/V converter and the reference voltage supply (92). See col. 16, lines 7-20

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Regarding claims 2 and 5, Suganuma teaches a driving device including drive frequency setting means for setting the drive frequency for the ultrasonic motor. See col. 4, lines 42-46.

Regarding claim 3-4 and 7, Suganuma discloses a chart showing frequencies of an ultrasonic motor as a function of the drive voltage. See Fig. 7

Regarding claims 9-10, Suganuma teaches drive voltage setting means (40) to ensure that the output voltage no longer increases or decreases when output voltage VM reaches a predetermined maximum or minimum value. See col. 23, lines 46-50.

Regarding claim 12, Suganuma teaches a drive frequency setting means (20) (Fig. 29) and discloses a pulse generator (130) sending a pulse signal of a frequency depending on speed feedback voltage.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following reference is cited for further reference.

U.S. Pat. No. 6,139,126 to Ayata

5. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Abbas Abduselam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

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Any response to this action should be mailed to:

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Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand delivered responses should be brought to Crystal Park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

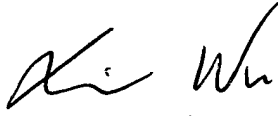
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 customer Service office whose telephone number is (703) 306-0377.

Abbas Abdulsalam

Examiner

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February 3, 2004


XIAO WU
PRIMARY EXAMINER